CLAIMS AMENDMENTS

1(currently amended). An optical fiber probe comprising:

a near-field probe having a core transmitting light incident from an external light source and having a circular cone structure formed on an end of the core, and a cladding coated on a surface of the circular cone structure core to protect the core; and

a plurality of thin metal layers coated on the near-field probe, symmetrically disposed on opposite sides of the near-field probe, and spaced-apart from each other to generate an electrical potential difference;

wherein the thin metal layers are spaced-apart from each other by a distance according to at least one of a wavelength of light incident to the near-field probe and a characteristic of a material forming the thin metal layers; and

wherein at least one of the thin metal layers comprises sides forming an angle of 60° with respect to a center of the near-field probe when the wavelength of the light is 400nm.

2 (original). The optical fiber probe of claim 1, wherein the thin metal layers is made of aluminum.

3 (currently amended). The optical fiber probe of claim 1, wherein the near-field probe is formed with a conductive layer coated thereon, and [a] at least two portions of the conductive layer ~~is~~ are removed ~~by scanning a focused ion beam on the conductive layer~~

to form the thin metal layers.

4 (original). The optical fiber probe of claim 1, wherein the electrical potential difference is generated between the thin metal layers to allow light to pass through the near-field probe.

5 (cancelled).

6 (cancelled).

7 (cancelled).

8 (Original). An optical recording apparatus comprising:

a laser diode generating light;

an optical disc storing data using an optical signal;

an optical fiber transmitting the light emitted from the laser diode;

a near-field probe scanning laser beam on a recording medium by transmitting the light, which is incident from the laser diode, using a voltage potential difference therebetween; and

a lens condensing the light emitted from the laser diode to scan the light on the recording medium using the optical fiber;

wherein the near-field probe comprises a plurality of metal layers coated on opposite sides thereof and symmetrically spaced-apart from each other to generate an electrical potential difference.

Claim 9 (canceled)

10 (currently amended). The optical fiber probe of claim ~~9~~ 8, wherein the near-field probe comprises an opening formed on a distal end thereof, and the electrical potential difference increases a light transmission rate of the opening.

Claims 11-20 (canceled)

21 (original). A method used with an optical recording and/or reproducing apparatus, the method comprising:

generating light from a light source;

transmitting the light through an optical fiber having a core and a cladding coated on a surface of the core to protect the core;

transmitting the light toward a recording medium through a near-field probe formed on one end of the optical fiber; and

generating an electrical potential difference using a plurality of metal layers formed on the near-field probe and spaced-apart from each other by a distance.

22 (NEW). An optical fiber probe comprising:

a near-field probe having a core transmitting light incident from an external light source and having a circular cone structure formed on an end of the core, and a cladding coated

on a surface of the circular cone structure core to protect the core; and

a plurality of thin metal layers coated on the near-field probe, symmetrically disposed on opposite sides of the near-field probe, and spaced-apart from each other to generate an electrical potential difference;

wherein the thin metal layers are spaced-apart from each other by a distance according to at least one of a wavelength of light incident to the near-field probe and a characteristic of a material forming the thin metal layers; and

wherein at least one of the thin metal layers comprises sides forming an angle of 90° with respect to a c/enter of the near-field probe when the wavelength of the light is 650nm.

23 (NEW). The optical fiber probe of claim 22 wherein said thin metal layers are made of silver.

24 (NEW). The optical fiber probe of claim 22, wherein the near-field probe is formed with a conductive layer coated thereon, and at least two portions of the conductive layer are removed to form the thin metal layers.

25 (NEW). The optical fiber probe of claim 22, wherein the electrical potential difference is generated between the thin metal layers to allow light to pass through the near-field probe.

26 (NEW). the device of claim 8 wherein said near field probe has a conical shape with said metal layers disposed on the sides of said conical shape.